

Original Research Article

Building safer secondary schools in Uganda through collective commitment to health and safety compliance

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The area of safety and accident prevention is of great concern to managers, because of the increasing number of deaths and accidents at work places. Using a case of Wakiso district, the study sought to investigate the relationship between collective commitment and management of health and safety in Ugandan secondary schools. The study employed a cross sectional survey design and collected data from 31 public and private secondary schools. The focus was on head teachers or deputies, teachers, wardens and school nurses. The correlation analysis indicated that there is a significant and positive relationship between collective commitment and managed health and safety ($r= 0.567$, $p \leq 0.01$). The study concluded that, ensuring health and safety in Ugandan secondary schools demands for collective involvement of stakeholders. It also requires a strict observation and enforcement of health and safety rules and regulations as well as the use of protection requirements.

Key words: Safer schools, health and safety, collective commitment in schools, secondary schools, health in schools

INTRODUCTION

Health hazards are part and parcel of human life necessitating the provision of safety in every organizational environment (Stubbs, Danielson, Ohlsson, 1999). The concept of safety should be centered on the development of human beings, taking into consideration all citizens in their day-to-day lives: on streets, in secondary school, other organizations like factories, when at leisure and at home (Ferreira, 2005). Armstrong (2006) defines health as a general state of physical, mental and emotional wellbeing of a person while safety is the protection of person's physical health. He further asserts that protection of health and safety hazard is the setting of a strict risk assessment criterion to identify hazards and analyze the risks attached to them so as to initiate preventive measures that lead to action. In secondary schools, health hazards are often in the form of, drowning, poison, homicides, suicides, and road accidents (Guldenmund, 2000). Many deaths, injuries and illnesses occur because of safety violation or gross negligence by the secondary school authorities (Rao, 2005). Every year over 1.1 million people die of occupational

injuries and work related hazards.

In Uganda, several hazards have been identified in a number of schools around the country. For example, 20 students and two unidentified adults perished in the fire at Buddo Primary School (The New Vision, April 16th 2008). In her address to the parliament on this matter, the minister of education and sports reported that the Inspector General of police had identified lack of safety provisions as being the main contributing factor to this disaster (New Vision April, 17th 2008). Also a student at St. Joseph S.S Nansana - Wakiso district died in bed as she was trying to abort (Bukedde, 4th June 2009). According to the Daily Monitor publications (Dec 31st, 2007), seven people were buried underneath the rubble while constructing a building at St. Peter Naalya Secondary School. The cost implications of all these incidents are quite high in terms of economic compensation, legal redress, psychological trauma and loss of public trust in the school and the administration. The problematic scenario is that in the last five years, there have been poor health and safety provisions in Ugandan

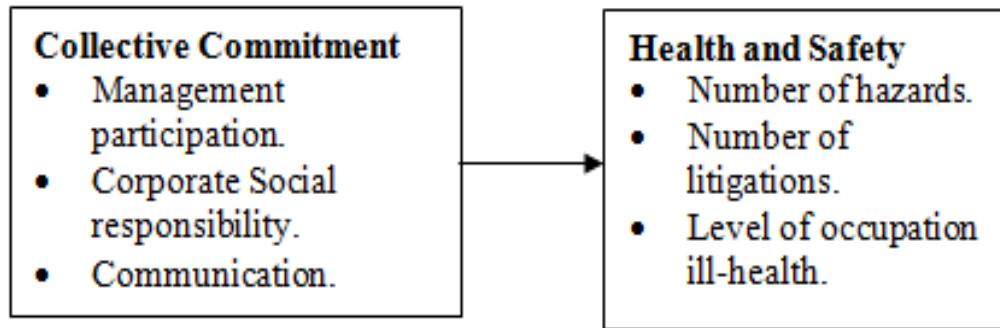


Figure 1.The Conceptual framework linking collective commitment and health and safety in schools

secondary schools; causing an outcry among parents, school authorities and policy makers about accidents in secondary schools. This study attempted to examine the relationship between collective commitment and management of health and safety shown in Figure 1.

Literature Review

Collective commitment can be defined in terms of semi variables such as management participation, corporate social responsibility and communication. Lawton (1998) argues that these semi variables are believed to be indicators of organizational collective commitment if practiced in organizations.

However, Lawton (1998) systematically fails to indicate the process of organization commitment and how its associated variables interact to give alternatives to health and safety standards. On the other hand, Richardson and Curwen (1995) noted that in many countries organizational health and safety is more effectively implemented if collegiality and shared attitudes are put as first place rather than detailed regulation and policy. This indicates that there is a link between collective commitment and health and safety. These researchers further do not rule out continuing along the path of a laissez-faire approach to health and safety. However, use of laissez-faire approach is labeled as a soft management approach. Health and safety issues need a strong will management which often pushes subordinates to act quickly so as to effectively keep pace with the times.

In addition, Richardson and Carlen (1995), scantily point out that managed health and safety is a collective responsibility. However, Richardson and Carlen (1995) did not provide the process through which collective consciousness could be maintained and nurtured. He further elaborates more on collective responsibility in the context of management of secondary schools. He reiterates that collective decision-making provides collective commitment of organizational members which leads to quality assurance.

In the same way, management of risks, health and safety

in schools needs a committed group (Ferreira et al. 2005). Collective participation in matters that affect organizational members leads to increased health and safety. HSE report (2001), argues that health and safety culture of a school is an important factor in ensuring the effectiveness of risk control. The health and safety management system is an important influence on the safety culture, which in turn impacts on the effectiveness of the health safety management system. Measuring aspects of the safety culture therefore forms part of the overall process of measuring health and safety performance. It adds, many of the activities which support the development of a positive safety culture that needs to be measured include; communication and co-operation. The health and safety related behavior of individuals at all levels of the school is influenced by health and safety culture, and behaviors in turn shape the culture.

Pediatr (2005) has made the following observation on collective commitment. Children and adolescents tend to spend approximately one third of their day at school or on the way to or from the school. Safety at school in terms the physical, emotional, and psychological environment, is the subject of constant concern of parents/guardians, teachers and school directors. He adds, school environments where safety is not promoted can only destruct the role of the school, check mating its basic principles. The preservation of human security is based on sustainable development, strongly related to health and education.

Hoffman et al. (1995), recommend that developing social norms that disapprove of bullying and all forms of violence, involve teachers employees, students, parents and community in all operational aspects of the school, designate the to be responsible to safety activities, encourage a sense of connectedness in students in relation to their school, develop and implement policies aimed at the prevention of suicide, violence and unintentional injuries. A cross section of studies (Rinhold, Ruhil, Lechtenberg and Hamm, 2001; and Baertels, 1998) indicate that many organizations ranging from companies to secondary schools lack the general knowledge, commitment and management required for health safety

Table 1. Sample characteristics of schools

Type of school	Freq.	%	Type of school	Freq.	%	Type of school	Freq.	%
Public	7	22.6	Day	17	54.8	single sex	2	6.5
Private	24	77.4	Boarding	14	45.2	mixed	29	93.5
Total	31	100		31	100		31	100

Source: Primary data

protection of their type from hazardous substances, environment especially the information and equipment needed in specific cases.

Ruhl (1989) and Rheker (1994) further contemplate that there is lack of quantitative and qualitative data on safe handling recommendations especially in the developing countries, yet the exposure to catastrophic hazards and experiences in immensely overwhelming. There is another crucial question on the extent of protection and regulation regarding health and safety in the school context. Following this thesis, sector specific arrangements and interventions need to pave way for promissory recommendations on health and safety precautions and the safe handling of hazardous substances.

Studies indicate positively, however, that sector-specific hazard interventions are being developed in many developed countries (Reinhold et al. 2001). In Germany, for example, prescriptive guidance is being developed (Kaup and Pohl, 1999), in the United Kingdom there are similar problems regarding protection from hazardous substances, and there is similar need to improve the situation, which is 74% in industry and 55% in manufacturing.

However, much of the data and policy in developed countries is crafted and relevant for industrial plants, but not for secondary schools yet the magnitude of severity in schools is as Edison, Tschoepe, and Aires (2005) note, increasingly risky and accident provoking. Therefore there is need for interventions on health and safety to be provided for secondary schools. Health at secondary School Programs (HSP) in Rio de Janeiro, developed by the State Secretariat of Civil Defense in partnership with the secretariat of health and education, has the objective of promoting the health of school children, their parents at the school community from frequent environmental- health risks by means of education action, prevention of injuries and care activities through intergraded education.

On the other hand, WHO Africa Region (2004), articulates the economic cause of accidents and risks. The emergency of new technologies, large scale industrialization, global warming and expansion of trade zones and financial regimes have transformed industrialization coupled with increased industrialization and accident rates in the workplace. Workers in mines, industry, forestry, construction and agriculture face increased risks many of which are the occupational injuries leading to morbidity and mortality. Worse still, in developing countries only

10% of workers have access to occupational healthy services. This situation in such countries does not spare the plight of secondary schools because occupational hazards are a cross cutting issue calling for interventions to design an idealized health and safety management package for secondary schools. This broad strategy enables countries of the third world to develop their own policies on health and safety so as to minimize school risks that are part and parcel of schooling.

METHODOLOGY

A cross section survey design was used, with the quantitative method. Data was collected from 89 secondary schools in Wakiso district, private and public (Wakiso District Education Report of 2009) (Table 1). A sample size of 31 secondary schools, both public and private, was targeted basing on Krejcie and Morgan (1970) sampling size determining model.

The secondary schools were cut into strata of private and public and out of those schools, various respondents were selected who were also cut into strata of top management (Head teachers) middle managers (3 Teachers) and the lower managers (a School Nurse and Warden). These were considered because they are directly charged with ensuring and promoting health and safety in schools. Self-administered questionnaires were used to collect data from respondents. The respondents were given 3 days after which the researcher with the help of 2 assistants started collecting the completed questionnaires from the schools, 250 questionnaires were issued to 73 schools, 136 questionnaires were returned from 31 schools and 114 questionnaires were never returned.

Collective commitment, as an independent variable, was measured using management participation, corporate social responsibility and communication (Lawton, 1998). Healthy and safety was measured using a check list designed to rate healthy and safety standards and performance in schools as the dependent variable but based on universal check list as the occupational health and safety management system quiz (2009), then the variables were measured on a five Likert scale (5(strongly agree), 4(agree), 3(Not sure), 2(disagree), 1(strongly disagree) and four Health and Safety; 5(very low, 4(low), 3(moderate), 2(high), 1(very high)). The reliability of the instrument was

Table 2. Reliability of variables used to construct the instrument

Variable	Cronbach Alpha
Collective commitment	0.961
Health and safety	0.811

Table 3. Zero order Correlation Matrix

Variables	Collective Commitment	Health And Safety
Collective Commitment	1	0.56**
Health And Safety	0.56** sig.0.01	1

N=31 ** Correlation is significant at the 0.01 level (2-tailed)

Table 4. Regression model

Model	Un standardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	-0.627	1.087		-0.577	0.569
Collective Commitment	0.282	0.244	0.275	-1.158	0.257
Dependent Variable: Health and Safety					
Independent Variable: Collective Commitment					

Source: Primary data

assessed using the Cronbach Alpha (1946), and the results indicated in Table 2.

Methods of data analysis

The data collected using questionnaires was edited and coded. Regression and correlation analyses were carried out to establish the relationship between the independent variable (Collective commitment) and the dependent variable (Managed Health and Safety).

Data analysis and interpretation

Demographic characteristics

Results indicate that almost 62% of the respondents were degree holders while 16.2% were diploma holders. It was further noted that, 11.4% were post graduates and 8.6% were certificate holders. About 50% of the respondents were between 36-45 years of age, and then 37% of the respondents had worked in the school for the period of 2-5 years. The results also showed that the males dominated (50.5%) the sample while females comprised (49.5%) of the sample. It was observed that about 84% of the respondents had ever carried out an occupational health and safety risk assessment while 14.3% had never carried out health and safety risk assessment. Again, data was obtained from 31 schools. Of these, 77.4% were private

schools and 22.6% were public schools, which show that views from private schools dominated the study. The results further indicate that mixed schools dominated the sample by 93.5% followed by single sex schools 29%. It was further noted that the majority of the schools were day constituting 54.8% and boarding schools were representing 45.2%.

Correlation Analysis: Relationship between collective commitment and management of health and safety

Pearson correlation was used to determine the relationship between collective commitment and health and safety (See Table 3).

Results in correlation matrix showed that collective commitment significantly and positively relates to management of health and safety ($r=.56$, $p\text{-value}<0.01$) in schools, which implies that collective involvement of educational stakeholders in management of schools has a significant contribution to the improvement of health and safety of schools. Results of the regression analysis were also computed to predict the health and safety of the schools with collective commitment (Table 4).

The result show that the independent variable linearly and significantly fits in the model to explain the dependent variable (collective commitment) ($F=3.48$, $p<0.05$). However, the relationship explained is weak ($r=0.275$).

DISCUSSIONS AND CONCLUSIONS

The correlation analysis reveals that collective commitment significantly and positively relates to health and safety ($r = 0.567$, p - value < 0.01). This implies that collective commitment is positively related to health and safety in schools. When educational stakeholders take on a collective commitment then health and safety is likely to improve because of their voice in the affairs of the school. This finding is in line with the literature of Ferreira et al. (2005) who argues that safety at secondary schools is a subject of constant collective commitment of parents, guardians, the state, teachers, administrators and education policy makers. To achieve this, the stakeholders need to have sound understanding of health and safety issues as well the desire to improve it.

Failure to provide safe places to study from can result into major fines and even criminal conviction for administrators. In their own self-interest therefore, managers must ensure a work environment that protects stakeholders from physical hazards, unhealthy conditions and unsafe acts of other personnel. The law enforcing authorities must take all steps to bring the violators to book and impose severe penalties so as to bring about a radical change in the outlook of managers who take safety matters lightly. Generally, this means making your health and safety expectations clear, supporting them financially and building a caring company culture. Communication and consulting on matters of health and safety are also vital in organizing for health and safety. They help to promote a positive culture and secure the implementation and continued development of health and safety policies (Blum, 2004).

Health and safety concerns everyone in a school although the main responsibility lies with management in general and individual managers in particular. The management develops and implements a health and safety policy and communicates to staff and students the importance of health and safety in school based on thorough understanding of the organizations health and safety procedures. Managers are directly responsible for ensuring that students are conscious of health and safety hazards and do not take risks. It has the responsibility to communicate and train, staff and students also have the duty to take account of what they have heard and learned into practice e.g. in case of fires students in the dormitory should stop whatever they are doing and roll in their blankets, in case the dormitories have flash doors they should be trained how to use them etc...This training and communication will motivate the staff and students to work and study in a safe environment and the school will be able to retain the staff and students and even increasing the school enrollment hence achieving its objective.

Blum (2004), adds that communication is encouraged to intervene easily into risky environment and it should flow in all direction to enable all stake holders to report risky environment for example, scaled walls of school fences,

presence of large animals, broken toilets, traffic accidents, exposed sharp objects, drowning, poisoning, bites, stings, and unbarred windows, open ditches which might be of harm to students. Communication involves information coming in to the school, flowing within the school and going out of the school. That arrangement should be in place to either receive or be alerted to legal, technical or health and safety management practice developments that could affect the management practice developments that could affect the school. This may be via specialist health and safety periodicate.

Effective internal communication is essential if health and safety procedures or polices are to be understood and consistently understood and consistently implemented. Schools successfully in health and safety make use of written word talking compound, face to face discussion support other communication activities by enabling students to participate. Formal consultative meetings can be further supplemented by team briefings or general management meetings with health and safety as a standing agenda item. However, written health and safety policies are required to demonstrate that top management is concerned about the protection of the students. Therefore, a collaborative managed process becomes an appropriate intervention means to control risks. However, causative variables like traffic, accidents and drowning might not be common in Uganda schools most of which are located in rural segments where traffic and water bodies are rarely available.

No matter how well the management arrangements and risk control systems are designed, they can never deliver the desired outcome if they are not implemented or complied with (Pigeon et al., 2000). Performance measurement must provide information to determine the level of compliance with management and risk control systems. It is important that schools set up arrangements which make sure that everyone, who is responsible for using safety provisions at the work place, have the necessary knowledge and skills to protect themselves and others against risks. Therefore the compliance measures should provide information to determine whether the work place precautions are in place, operating and effective.

In conclusion, ensuring health and safety requires strict observance and enforcement of health and safety rules and regulations. In addition it demands the collective involvement of education stakeholders. Enforcement of these rules and regulation requires sensitizing, training and mentoring of enforcers or whoever in the jurisdiction of the school. Health and safety concerns everyone management in general and individual managers in particular. Management develops and implements health and safety policies and ensures that procedures for carrying out risk assessment, safety audits and inspections are implemented. Importantly, management has the duty of monitoring and evaluating health and safety performance and taking corrective action as necessary. With collective commitment,

it requires setting a clear platform for equal sharing and participation in decision making regarding health and safety, and an open door policy. Therefore, schools are requested to consider and adopt compliance and collective commitment because they have been found to be important in enhancing health and safety in schools of Wakiso District. Again, educators should undertake to develop / build collective commitment skills among the teachers, students, wardens, policy makers, neighbors of the schools and the police so as to enhance health and safety in secondary schools. Their commitment is vital when they put in place protective equipment, fire extinguishers, notices indicating danger etc to ensure high levels of health and safety, include on their syllabus the subject "Health & Safety" to combat incidences and save the new generation, and develop and implement health and safety policies to ensure that procedures for carrying out risk assessment, safety audits and inspection are implemented. Sometimes, there is need to have safety committees of health and safety representatives and procedures and make suggestions on improving health and safety performance, and to encourage an open door policy to report incidents that are likely to lead to occupational accidents and diseases directly to the top administration. Finally, it is important to apply benchmarking on health and safety so as to compare different processes and performance indicators with in order to learn how to reduce accidents and ill health, improve compliance with health and safety law and cut compliance costs.

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